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ABSTRACT

This study reviews interventions in history teaching history from 1985 and 1995, an era of major redefinition in the field of instruction. Kindergarten through grade 12 are the focus population for the research. The study examines the context for educational change and addresses four central questions about the development of new curriculum programs for teaching history and the social sciences. The questions include: (1) What vision of history has recently emerged in an era of school reform? (2) What cognitive processes need to be developed in students for such a study of history? (3) What do successful examples of recent curricular interventions in the teaching of history look like and what makes them effective? and (4) What does this research tell us about educators' future work in the teaching of history? Research related to each of these questions is examined with recommendations offered for future action. (EH)

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EDUCATIONAL INTERVENTION IN SOCIAL SCIENCE: COGNITIVE PROCESSES IN THE LEARNING OF HISTORY

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A people forgets unless it is called to remember together.

O. L. Davis, Jr.
Journal of Curriculum and Supervision
Spring, 1995, p. 190.

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EDUCATIONAL INTERVENTION IN SOCIAL SCIENCE: COGNITIVE PROCESSES IN THE LEARNING OF HISTORY

The decade between 1985 and 1995 has been an unprecedented period of change around the world. Political alterations -- the decline of Soviet Communism, the unification of Germany, the end of apartheid in South Africa -- have been mirrored in technological, economic, and social developments of comparable magnitude. In the United States, it has also been a time of re-evaluation and major examination, brought at the end of one century and focused on the dawn of the next. The results suggest change and development in many fields.

Education is no exception to this period of restructuring and reform. Changes in teaching all subjects have been contemplated; questions about purpose and standards have been raised; issues about program design and assessment are under consideration. History and the social sciences (anthropology, archaeology, economics, political science, psychology, and sociology) are but one of the eight major content areas included in the National Goals legislation (U.S. Department of Education, 1993). This study focuses on interventions in the area of teaching history during this time of major redefinition. The school levels between kindergarten and Grade 12 (K - 12), in which explicit social science is often interrelated into the history curriculum, are the grades emphasized.

Introduction

A Period of Reform

During this time of reform, American schools have been trying to restructure, indeed to redefine, what happens in them for all youngsters (Presseisen, 1985; Presseisen, Smey-Richman & Beyer, 1994). The heart of the change envisioned is the expectation that every student will not only acquire specific knowledge -- or knowledge of history -- but will learn to think and be able to solve problems in a vastly more complex, demanding world (Resnick & Klopfer, 1989). That is a daunting challenge and one about which, currently, there is serious debate among America's political leaders. Can all students be helped to think about content at high levels, and what do we need to do to make that happen in all schools? That is as much a challenge

for the preparation of teachers as it is for the education of students, for such a goal demands skills and abilities in the classroom that universities and colleges of education are only beginning to address (Mangieri & Block, 1994). This concern is central to the question of educational **intervention** pursued over the past decade.

Another important aspect of education, during this period of reorganization, is the understanding that learning is an **intellectual** endeavor, consisting of acts that require competent performance through substantive and authentic tasks (Wiggins, 1989a; 1993). Recent educational research suggests such holistic change occurs only gradually, not in one fell swoop; it requires reflection and the development of personal meaning; and it demands practice with fine tuning by a caring instructor (Gardner, 1993; Gardner & Boix-Mansilla, 1994). How do you build a system capable of inspiring such thoughtful, seamless schooling? That is another concern of the question of educational intervention.

The major American program for school reform is called Goals 2000: Educate America Act. Essentially, the program establishes a vision of what is hoped American education will achieve by the turn of the century. Based on eight national goals (see Figure 1), the program calls for community-based activity to realize these objectives in every school (84,501) and in every school district (16,000) across the nation (National Center for Educational Statistics, 1994). Educators in the fifty states have been working to develop curricular frameworks to incorporate these national goals into teaching plans and school programs. School staffs and community groups have been discussing policies and practices which they hope will gear schools to world-class standards of excellence for every child (U.S. Department of Education, 1993). Researchers and publishers have been trying to develop resources and materials they hope educators will adopt and use in their new, innovative programs. These kinds of activities have led to major efforts one might call interventions in the teaching of history. Although some educational researchers charge that the national goals program is not guided by an overall theory -- and they call for such a base -- they nevertheless praise the program's focus on teaching and learning, common

FIGURE 1

THE NATIONAL GOALS

(1) All children will start school ready to learn.

(2) The high school graduation rate will increase to at least 90 percent.

(3) All students will leave grades 4, 8, and 12 having demonstrated competency over challenging material in core subjects, and all students will learn to use their minds well so they will be prepared for responsible citizenship, further learning, and productive employment.

(4) The nation's teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct all students.

(5) U.S. students will be first in the world in mathematics and science achievement.

(6) Every adult will be literate and will possess the knowledge and skills necessary to compete in a global economy.

(7) Every school will be free of drugs and violence.

(8) Every school will promote partnerships that will increase parental involvement.

From: *Schools Board News*, October 11, 1994, p. 6.

articulated standards, and long-range assessment, particularly in the core subjects which include history (Kamii, Clark & Dominick, 1994).

The Context for Educational Change

In terms of teaching history, various arguments have been proposed to support the need for a major reorganization of that subject matter within the efforts of school reform. Perhaps the most compelling argument is that students today show they know very little history and, what is worse, they don't seem to care about their lack of knowledge. In 1983, a Los Angeles attorney informally surveyed the world history knowledge of a group of well-to-do American teen-agers, then about to complete high school (Stein, 1983). He found they were ignorant of the most basic information about the combatants during the second World War. A few years later, a leading government official announced that history and literature teaching in America's schools produced students who exhibited serious gaps of knowledge about the past; she called for dramatic changes in curriculum and instruction in both subjects (Cheney, 1987). Many other researchers and practitioners have maintained that the memorization of facts and emphasis on low-level skills mark an education that is not focused on quality learning (Glasser, 1992; Lewis, 1990). It seems that history joins with other disciplines in being poorly taught; the education community faces a curriculum crisis in both program and methodology.

The question of student passivity in learning is another aspect of educational concern for change. One overall reform agenda has emphasized the importance of students being engaged in the **performance** of higher-level contents as an integral part of instruction. Publication of the new standards in the area of mathematics (Commission on Standards for School Mathematics, 1989) gave impetus to identifying approaches to teaching that would inspire learning at these higher levels, thus making the engagement more interesting and the tasks more student motivating. These same concerns can be raised in teaching history. Wiggins (1989b) warns of the futility of trying to teach everything of importance, joining Sizer's (1992) and Newmann's (1988) admonitions about "coverage" in an era of exploding knowledge generation. The accumulation of fact is not what is important, these researchers emphasize.

Rather, the question of **what do students do** to inquire into problems and to deal actively with the key concerns of a discipline is of most serious consequence.

The dynamic nature of knowledge building and the parallel development of constructivist teaching (Brooks & Brooks, 1993; Richardson, 1994) have become major concepts of a new, rigorous curriculum design aimed at student achievement. Thus, the modern educational task centers on an approach to instruction in which students are placed in the dual roles of thoughtful inquirer and reflective evaluator, especially about topics and issues that are raised by their own discovery and experience. That teachers and students require a classroom in which the intellectual freedom to go where essential questions lead -- within bounds set by general questions, themes, and concepts developed in a history syllabus -- is now an initial and most fundamental pedagogical assumption.

There is also a concern about the nature of the population of learners in today's schools and the perspectives these students bring to learning history. The fact that America's population has changed dramatically over the past decade has raised many new issues for public educators. First, there is the question of the appropriateness of content for learners' particular experience and background. Today, students reflect many cultures and languages, as well as diverse socio-economic conditions (Banks, 1991). For example, forty percent of the minority population of the entire country is concentrated in only a hundred of our largest cities (Peterkin & Raywid, 1994). Teachers must consider what is **meaningful** to each student and what kinds of prior knowledge are available or are needed before instruction begins. This leads to a second issue, the question of a common "cultural literacy" for all students, if one can be identified. There are scholars who question a multicultural approach in the classroom and suggest that some of the goals of strong historical methodology, such as accuracy and objectivity, suffer from too fragmented a curriculum (Hirsch, 1985; Ravitch, 1990). Conversely, there are educators who call for an understanding of cultural plurality, particularly to fight bigotry and intolerance among many different groups in America's population (Bullard, 1991/1992; Miller, 1994). They stress, simultaneously, that knowing history and building a

keen awareness of the events of the past are essential foundations for every learner's education. It will be enlightening to see how each of these concerns, rooted in the nation's demography, are played out in particular classroom interventions.

In the final analysis, this period of reform has been concerned with the place history holds in the overall curriculum. How should history be approached for student learning? This concern is part of the growing awareness that education has become politicized in the United States, particularly since the end of World War II (Cohen, 1990). Perhaps, given the interpretive quality of historical study, no content area is perceived as more "political" (Cohen, 1995). While traditional disciplinary content is often taught through textbooks and teacher-centered lectures, a more emergent methodology now calls for building connections, setting themes for coherent student research and analysis, and integrating historical study with other contents and subject matters (Jacobs, 1989; 1991). There is a transcendent quality to such a curriculum, says Beane (1995), and appropriate criteria need to be raised to assess the conceptual integrity of such integrated efforts. Martin-Kniep, Feige, and Soodak (1995) propose curricular significance, coherence, and relevance as such criteria. But the paramount value today of striving for higher-level understanding of the events of the past, and relating them to developing circumstances and consequences in the present and the future, suggests Applebee (1993), is to provide "culturally significant conversations" which students need to have in the classroom and employ beyond it, as they seek to find meaning and make sense of happenings in their world. History thus holds a foundational place in the current curriculum, but it is a position maintained by key cognitive processes that need to be understood and related -- not only to the requisites of reform noted above -- but to the very nature of history-making itself. This cognitive foundation is the point at which research on current classroom interventions needs to begin.

Questions to Pursue

In its goal to understand recent educational interventions in the teaching of history and the social sciences, this study addresses four central questions about the development of new curricular programs. These questions are:

- What vision of history has recently emerged in an era of school reform?
- What cognitive processes need to be developed in students for such a study of history?
- What do successful examples of recent curricular interventions in the teaching of history look like and what makes them effective?
- What does this research tell us about educators' future work in the teaching of history?

Discussion follows on each of these queries.

History Teaching in an Era of Reform

What is History?

Examination of history teaching over the last decade exhibits two general characteristics that reflect the current era of reform. First, the influence of the novice/expert model often found in cognitive psychological research has been extended to the instruction of history (Leinhardt, Stainton & Virji, 1994; Resnick & Klopfer, 1989; Wineburg, 1991b). The same kind of contrasting study has been conducted in classrooms to compare what successfully performing students are able to do in learning history versus their less successful peers. The second aspect is that instructional research has to be practitioner-sensitive. Armchair theorists are no longer considered sufficiently capable of describing competent, successful history learning (Booth, 1994). Whether such theorists are historians engrossed in the self-study of their own methodology or prospective teachers becoming self-regulative in their professional understanding of history knowledge construction, they need to look at instruction **in situ** and gauge the teaching of history through an interactive mode. It has become accepted that real, live classroom exchange needs to be monitored; perhaps not as extensively as recent ethnographic documentation suggests (Goldenberg, 1991), but discourse-based nonetheless. Thus, these two characteristics provide fertile ground for tracking history instruction and reflecting on it what means to teach the domain productively.

The image of history as a viable subject matter, an epistemology, also reflects the past decade's involvement with sophisticated cognitive ability development (Glaser, 1984). The centrality of knowledge is emphasized in history learning, but -- as in more general studies of cognition -- history classrooms show that just accumulating random factual information is hardly the measure of achievement. Experts at learning history reason more powerfully than lesser prepared students and **use their extensive knowledge base** differently, says Seixas (1993). Classroom teachers, therefore, need to model such reasoning carefully. At the same time, it has been realized that teachers cannot merely "give" historic knowledge directly to students. Instead, teachers must be concerned with developing tasks and planning lessons that can serve as the "base of generative knowledge," so that students can learn more easily and independently as the curriculum develops (Resnick & Klopfer, 1989). Secondly, the importance of classroom mediation has become central to a teacher's interaction with students; this explains why constructivist teaching is now readily found in history instruction (Brooks & Brooks, 1993). These factors will, no doubt, also influence the development of history-based curricular interventions.

One of the most important curricular considerations to examine is the question of what definitively is history? Has a different conception of this domain emerged during this period of reform? Far from Henry Ford's notion that "History is bunk," or Napoleon's "A fable agreed upon," current researchers conceive of history not as a compendium of indisputable facts but as a process of constructing, reconstructing, and interpreting past events (Leinhardt, Stainton & Virji, 1994). That is, in fact, what lies at the heart of "thinking historically" (Spoehr & Spoehr, 1994). The dictionary suggests history is a branch of knowledge that records and explains the happenings of the past; scholars today emphasize that history is something very separate from such significant events (Foshay, 1995). The historian uses the historic record -- which occurs in diverse media -- as the tool of his/her investigation; but what he/she writes is as much a **representation** of what has occurred as is literature or art a human rendition. Thus, the

historian's message needs to be subject to careful validation or verification. Ravitch (1990) captures this conception in her approach to history teaching in the elementary classroom:

> To the extent that children come to understand that history is a study that is constantly revised and reinterpreted, they will realize that historical study has political implications, that it is written by fallible humans like themselves who make conscious choices among facts, that some historical theories are wrong, that what they learn in the textbooks is conditional, and that the historian often works like a detective. (p. 48)

The dull, digested data of a "basal" reading program would also be found wanting in a static document collection for young history learners.

Wineburg (1991a, 1994b) likens pursuing history, unlike many other disciplines, to "solving ill-structured problems" and he says it begins where thinking in other domains usually leaves off. The historian knows the outcome of a series of events; his/her task is to figure out **why** and **how** circumstances played out as they did, and therefore created these results. Wineburg (1991a) poses three interesting questions as the basis of the historical thinking task:

(a) How do people construct an understanding of historical events from a group of fragmented and contradictory documents?
(b) What heuristics or rules of thumb help individuals fill in the gaps left by such documents? and
(c) What beliefs do people hold about history that help or hinder their ability to make sense of historical evidence? (p. 73)

Much of the answer to these queries rests on an understanding of how learners actually develop historical thought through their studies at school and beyond. Such understandings underline the importance of examining children's thought processes and motivations in their development of historical thinking.

How is History Learned?

Early in this century, Booth (1994) points out, history teaching was tied to a narrow view of learning in which there was a heavy emphasis on covering political and military contents and on rote learning and regurgitation of fact. Thus, the major cognitive operations cited were those of recognition and recall. Gradually, the varied structure of academic contents was appreciated -- such as Bruner's (1960) recognition of the different structures in the several disciplines -- and a more interdisciplinary instructional approach was advocated, albeit one

closely related to technical and scientific education. The incorporation of Piaget's developmental psychology was a notable step during the sixth decade of the century; the Swiss epistemologist recognized that the learner's own progress in the world of thinking was a major consideration in mastering any body of knowledge or formal content (Piaget & Inhelder, 1969). The progression of learning -- keyed to the constructive development of particular mental operations -- was a major tenet of Piaget's explanation of student success. Booth (1994) suggests that Piaget's "age-stage framework" was too limited an understanding of change in student thought. So today, the importance of both the "heart" and "head" are emphasized in teaching historical thinking, although, he adds, that this is "tempered by a proper consideration of the available evidence and a due regard to the constraints of time and place" (p. 64).

Recent research suggests there is an underlying assumption that history learning is a gradual, holistically cumulative affair. Levels of explanation change slowly in children's processing, parallel to the development of more complex experiences and awarenesses. Delval (1994) shows how the general characteristics attributed to learning about social mobility, for example, span three different clusters of characteristics in a learner's gradual thought development. The awareness of the need for dynamic change is evidenced; the learner progresses in understanding a world constantly in flux. (See Figure 2)

[Insert Delval, 1994, p. 90, as Figure 2]

What the student does not know at one period of development may be left to figure out and to relate to future learnings. Discrepancies that occur during instruction may pose questions that a student raises later on, or which a teacher might address when appropriate content suggests a more meaningful relationship. The **dynamic** aspects of inquiry-based learning are thus emphasized in this kind of transformation and development.

In setting elementary school curricula, researchers now stress that age-related characteristics of learning need to be examined and related to potential classroom practices which will be considered "appropriate" for such learners (Eheart & Steinkamp, 1989). The

FIGURE 2

Levels of Explanation of Social Mobility

Levels	*General Characteristics*	*Mobility*
I	The reality is immediate and perceptive Systems are not understood Society is a rational order made to satisfy human needs. There is abundance. Scarcity is not understood. Relations are only personal Importance of desire	No change (born or sudden change through receiving or finding money. Procedures: chance, lottery, work (nonspecified) Unclear connection with work and money
II	Discovery of constraints or reality Social resources are scarce There is social competition for the scarce resources. Social relations (seller, customer, worker, etc.) are different from personal ones (friend) Understanding of simple systems, and relations between simple systems Understanding of diachronic processes	Gradual and subtle change Multiple and complementary procedures Once started, the process develops naturally Importance of training Individual competition Will and effort are considered
III	Consideration of possible worlds Understanding of competition putting oneself in the role of another Social constraints Long term processes, longer lived than the individual The possibility of understanding complex relations between multiple systems. Ideological bias Equity versus equality	More realistic conception of the difficulties of change. Importance of the level of departure Active role of the subject at any moment in the process Personal qualities, risk, ambition Evaluation of possibilities and consequences Social competition Will as a way of overcoming social competition

From: Delval, J. (1994). Stages in the child's construction of social knowledge (p. 90). In M. Carretero & J. F. Voss, (Eds.), *Cognitive and instructional processes in history and the social sciences.* Hillsdale, NJ: Lawrence Erlbaum.

individual characteristics of every child are also part of this consideration. Hoge and Crump (1988) discuss the importance of understanding time sequence in this context; they build their view of the development of historical understanding in terms of how the learner acquires key awarenesses or understandings about time:

- Conception of the **past** which can be **remembered** and **related** to **present action**.
- Conception of the **present** as a time frame which is **actively used**.
- Conception of the **anticipated future** which can be **used** to **modify** present action [emphasis added] (pp. 4-5).

In all three instances, the student needs to be cognizant of his/her own growing conceptual structures. The first grade youngster comes to school barely aware of "yesterday," "today," or "tomorrow." How difficult for his/her reasoning powers' development is the appreciation of how a historical figure -- say, a Julius Caesar or an Abraham Lincoln -- can be represented over time. The events of Roman history or the significance of the Civil War are but episodic happenings until a conceptualization emerges that is able to weave temporal threads into a meaningful whole -- probably not until middle school. That takes historical learning even beyond Piaget's original cognitive interpretation.

There is currently a strong emphasis on history learning that is of interest to or motivating for a student's engagement. Some of the impetus for this approach comes from multicultural interests; some is due to the need to capture the attention of a generation reared on television and video games. Often, the motivational is blended with the social aspects of engagement and are thus joined to the powerful role of mediation by another person or group of persons acting as "teacher." The historian/instructor can learn from both Feuerstein's (1990) and Vygotsky's (1983) work throughout this century, showing how important it is to create challenging classroom activities that motivate and mediate simultaneously:

> An effective teacher actively intends to teach something to the child and awaits the learner's response, so as to know that the objectives or intentions are reciprocal. It is this response from the student that opens possibilities that he/she will be modified by the learning, that new meaning will be available, and that the learner is both aware of significant aspects of knowing and able to

> manifest them initially with some assistance from the instructor (Presseisen, 1992, p. 8).

Often a combination of individual activity and more collaborative work, as in cooperative learning tasks, creates an appropriate and stimulating setting for successful learning. The foundations of such a learning environment are the cognitive processes themselves; they are the building blocks of new thought formation.

Cognitive Processes and Learning History

The Cognitive Revolution

The current effort to reform schools is embedded in this century's experience with a new paradigm to explain human intellect and its modification. This approach involves explaining thought development, brain function, and human behavior in ways generally known as the "cognitive revolution" (Gardner, 1985; Presseisen, Smey-Richman & Beyer, 1994). At its base, human intellect is considered modifiable and able to construct itself. More deficit-based models of learners and learning have been rejected. Much of this new focus began to influence school programs and alter instruction as many educators realized that schooling for the 21st century required **all students** to be able to learn challenging academic content and to perform competently in school, as well as in the workplace, on the basis of new "world class standards" (Carnevale, 1991). Some of the most significant questions addressed in this revolution include: "What are the higher-order thinking abilities?" and "How are these abilities reflected in the learning of particular subject matters such as history?"

The Delineation of Thinking Abilities

There have been many descriptions and frameworks suggested to sketch the world of thinking (Costa, 1991; Marzano, Brandt, Hughes, Jones, Presseisen, Rankin & Suhor, 1988, 1991; Presseisen, 1987). That some of these conceptions fit a particular kind of program more than others is not surprising, considering what that program purports to teach -- mathematics or language learning -- for example. But what is surprising is that there are large areas of agreement among researchers with regard to what these thinking frameworks are, as well as

how they are constructed and used in describing student progress. Marzano and his associates (1987), for example, suggest that there are several higher-order thinking processes to be mastered while, at the same time, core thinking skills are learned in domain specific experiences. Thus, by implication, teachers must be concerned that students develop abilities in both the micro- and macro-thinking world.

Presseisen (1987) has sketched a description of thinking that includes interrelated, essential skills and complex processes. It is informative to compare her model of essential skills with one created by Marzano and his colleagues (1991), with whom she also collaborated:

[Insert Figure 3: (Presseisen) A Model of Essential Thinking Skills, p. 14]

[Insert Figure 4: (Marzano in Costa) Core Thinking Skills, p. 92]

The comparison shows that developing a taxonomy of thinking is not yet an exact science, but there definitely is movement toward a common conceptualization of what are foundational thinking operations. Whichever conception is applied to education, it is important for teachers to consider what they want students to be able to do cognitively, as classwork focuses on the content areas being taught. There may also be implicit relationships assumed among the several essential cognitive skills; thus, students need to be able to manifest these earlier or prior learnings before they are called upon to perform more difficult or intricate tasks. The same can be said for learning higher-level or complex processes. Presseisen (1987) suggests four such processes; each one is built on the assumed availability of multiple essential skills. Similarly, Marzano and his associates (1988) propose eight types of higher-level processes which are based on core skills these educators have delineated (See Figure 4). Again, these processes are drawn from Marzano's particular viewpoint of knowledge construction:

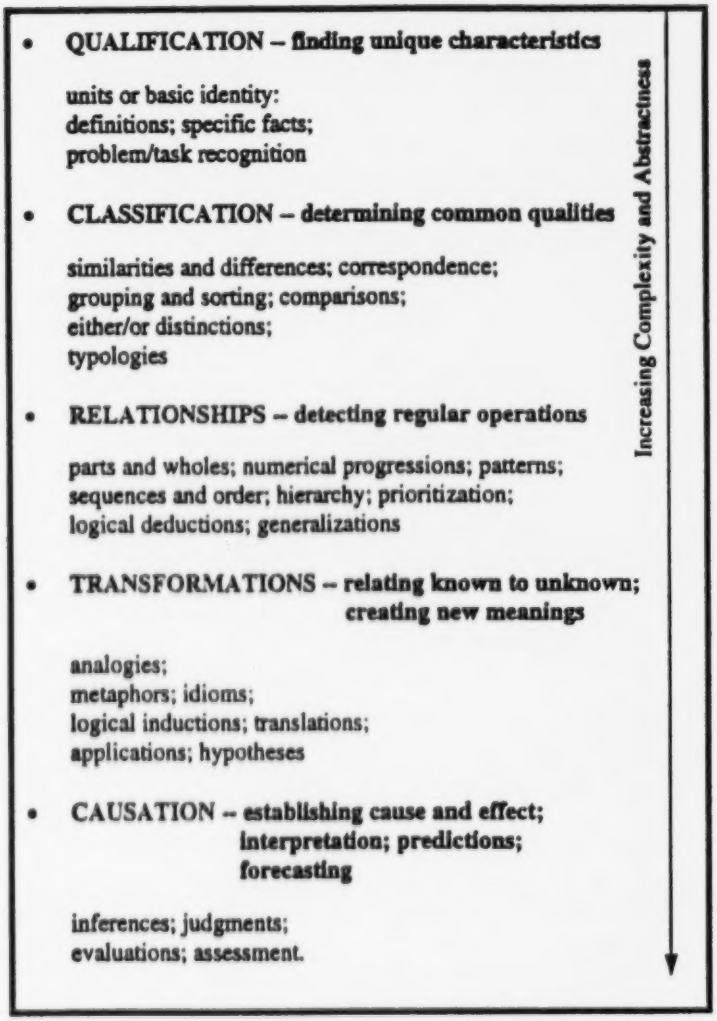
[Insert Figure 5: (Presseisen) A Model of Advanced Thinking Skills, p. 26]

[Insert Figure 6: (Marzano) Thinking Processes, p. 33]

Ennis (1991) has extensively elaborated on the complex process of critical thinking, which he defines as the "reasonable, reflective thinking that is focused on deciding what to believe or do" (p. 68). According to Ennis, there are two major classifications of thought: dispositions

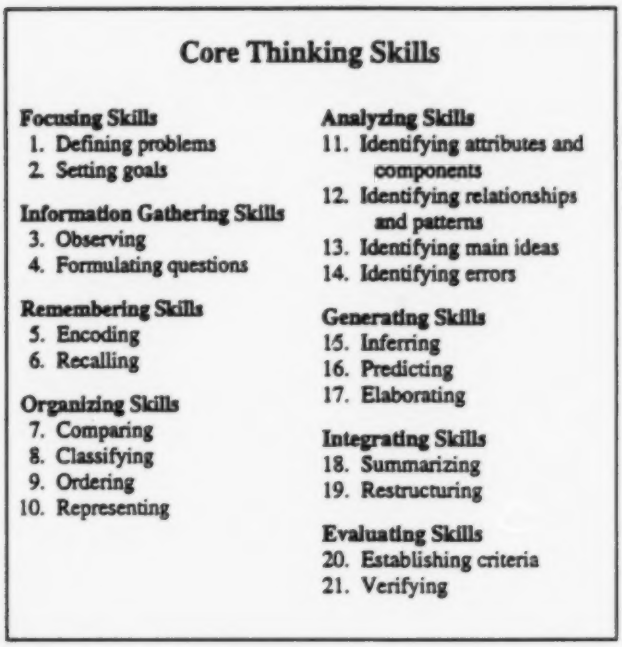
FIGURE 3

A Model of Essential Thinking Skills: Basic Processes



From: Presseisen, B. Z. (1987). *Thinking skills throughout the curriculum: A conceptual design* (p. 14). Bloomington, IN: Pi Lambda Theta.

FIGURE 4



From: Marzano, R. J., Brandt, R. S., Hughes, C. S., Jones, B. F., Presseisen, B. Z., Rankin, S. C., & Suhor, C. (1991). Dimensions of thinking: A framework for curriculum and instruction (p. 92). In A. Costa, (Ed.), *Developing minds: A resource book for teaching thinking*. Alexandria, VA: Association for Supervision and Curriculum Development.

FIGURE 5

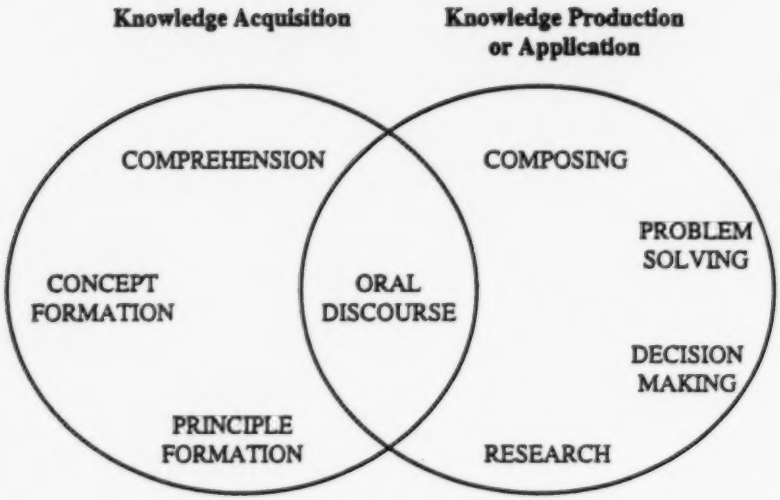
A Model of Advanced Thinking Skills: Complex Process

HIGHER ORDER SKILL	TASK	ESSENTIAL SKILLS	YIELDS
PROBLEM SOLVING	Resolve a known difficulty	Relationships Transformations Causations	Solution Conclusion Generalization (potentially)
DECISION MAKING	Choose a best alternative	Classifications Relationships	Response Best alternative
CRITICAL THINKING	Understand particular meanings	Relationships Transformations Causation	Sound reasons proof, theory
CREATIVE THINKING	Create novel or aesthetic ideas/ products	Qualification Relationships Transformations	New meanings, pleasing products

From: Presseisen, B. Z. (1987). *Thinking skills throughout the curriculum: A conceptual design* (p. 26). Bloomington, IN: Pi Lambda Theta.

FIGURE 6

Thinking Processes



From: Marzano, R. J., Brandt, R. S., Hughes, C. S., Jones, B. F., Presseisen, B. Z., Rankin, S. C., & Suhor, C. (1988). *Dimensions of thinking: A framework for curriculum and instruction* (p. 33). Alexandria, VA: Association for Supervision and Curriculum Development.

and abilities, and there are fourteen broad-based dispositions which are significant in the development of critical intelligence. They are:

1. Seek a clear statement of the thesis or question.
2. Seek reasons.
3. Try to be well informed.
4. Use credible sources and mention them.
5. Take into account the total situation.
6. Try to remain relevant to the main point.
7. Keep in mind the original or basic concern.
8. Look for alternatives.
9. Be open-minded.
10. Take a position (and change a position) when the evidence and reasons are sufficient to do so.
11. Seek as much precision as the subject permits.
12. Deal in an orderly manner with the parts of a complex whole.
13. Use one's critical thinking ability.
14. Be sensitive to feelings, levels of knowledge, and degree of sophistication of others. (p. 68)

Ennis then focuses on twelve key abilities for critical thinking. These skills have multiple facets to them and develop in learning specific contents, while the more long-range dispositions are simultaneously being forged. These abilities include:

1. Focusing on a question.
2. Analyzing arguments.
3. Asking and answering questions of clarification and challenge.
4. Judging the credibility of a source; criteria (that are often not necessary conditions).
5. Observing and judging observation reports; criteria (that are often not necessary conditions).
6. Deducing and judging deductions.
7. Inducing and judging inductions.
8. Making and judging value judgments.
9. Defining terms and judging definitions (three dimensions).
10. Identifying assumptions.
11. Deciding on an action.
12. Interacting with others. (pp. 68-70)

It is hard to say which conception of thinking is more commensurate with learning history. There are certainly some parts of each theorist's inventory that are related to aspects of "historical thinking." One needs to look carefully into a particular conception of thinking ability and raise the question of how young learners would need to work to master such a set of skills. At the same time, it would probably be useful to consider what does history learning require a student to learn -- over the long haul -- in order to do well? What kinds of complex

processes most frequently apply in learning to "do history?" That includes both dispositional characteristics and specific abilities. Certainly, when planning a classroom intervention, all these considerations need to be kept in mind.

Cognitive Processes in Thinking Historically

Of all mental process associated with thinking historically, the process of **remembering** is the one most often cited and frequently used (Davis, 1995). Memory in the newer vision of historical inquiry involves not only those skills of recall and recognition associated with the retention of factual information, or declarative knowledge, suggest Semb and Ellis (1994), but also more cognitive abilities that are significant for the re-construction of the past. These researchers cite cognitive skills based on tasks such as "problem solving, concept identification, analysis, comprehension, rule using, diagnosis, prediction, explanation, and classification" (p. 267), as key operations to be mastered at school. Their conception largely corresponds to the Marzano-Presseisen-Ennis conceptions of thinking presented in the last section.

Thinking historically usually involves the analysis of text, so reading and analyzing language is also centrally involved in historical inquiry. However, just decoding the text is not sufficient, says Wineburg (1991b, 1994a). "It is not the literal text, or even the inferred text (as that word is commonly used), that this historian comprehends, but the **subtext**, a text of hidden and latent meanings" (p. 498). In terms of learning to "do" history, this directive has at least two implications for the novice learner. First, one cannot necessarily assume that historical text is always accurate -- one might be able to read the words, but what if they are not proper depictions of the "facts" of a case? Current research (Rubin, 1994) suggests that inaccuracies and even biases in historical sources are not uncommon. A reader of history has not only to read carefully, but must also read with a skeptical eye. And secondly, many resources -- not merely a few -- constitute sound reading or research about a particular historical incident. Once several sources are sought out, the reader is faced with the problem of reviewing comparable depictions. The student must be prepared to read, to analyze and

compare carefully, and -- in the last analysis -- be ready to advance a well-reasoned argument for why Writer A has constructed a stronger or more accurate version of what happened than Writer B.

Historical inquiry also assumes that the learner is curious and is constantly filling in his/her mindmap about a particular topic. This can involve actively asking questions of the author or it may mean the skeptical reader wonders why particular descriptions are said in a particular way -- back to Wineburg's hidden meanings. It can also be said that the reader's main task is to dig more into the author's intent, however well hidden that may be. Wineburg (1991b) cites Vygotsky's writing about "inner voice" in **Mind in Society** (1978), and suggests the reader needs to carry on a conversation with him/herself regarding whether this author is to be believed or if there are serious omissions or additions that need to be pursued. Historical analysis may have its roots in the distinctions embedded in the linguistic studies of the ancient Trivium -- grammar, dialectic, and rhetoric (Jarman, 1963). More recent constructivists would suggest that the pursuit of history is the pursuit of "situated learning" (Perkins & Salomon, 1989; Torney-Purta, 1994). In Wineburg's words, "Historians seemed to view texts not as vehicles but as people, not as bits of information to be gathered but as social exchanges to be understood" (p. 83). One can see that Ennis' emphasis on dispositions, and understanding their development, may be as significant an attribute of good historical expertise as more rationally-based abilities.

Students need to become aware that the historian as writer is as important as the historian as purveyor of text. To realize this aspect of history, classroom assignments need to help the learner become more directly acquainted with the acts of writing history. Some researchers suggest that classroom learning starts with students learning about the distinction of writing reports versus the task of problem-based essay production (Greene, 1994). Writing reports is closer to the old vision of history -- highlighting recall and recognition -- in which the writer's role, rather lifelessly, is to reproduce a string of facts or observations, much in the same mode as they were taken in. On the other hand, problem-based essay production

involves posing a question or a series of questions, conducting analysis in depth -- perhaps of a rather messy reality -- and developing a well-supported point of view expressed in writing (Spoehr & Spoehr, 1994). It could be said, as shown in Presseisen's (1987) model of complex processing, that the essay production task involves as much of a decision making expertise as a problem solving skill (see Figure 5). Nevertheless, the expectation is that a student will find an important, perhaps unique, vantage point about which he/she develops strong but reasoned affect, and which he/she will contribute as his/her own original ideas on a given topic. That is what is important to real history learning on the student's part; writing about history is a particular kind of literacy regarding what has particular meaning to the learner. It begins with significant questions to examine. Wineburg (1991a) maintains, in many classrooms, few history students ever arrive at such an awareness of their own ability to inquire and reason. And rarely do they express these understandings in writing.

In the larger picture, being a good student of history calls for clustering related abilities that have both a cognitive and metacognitive base with a strong measure of personal awareness. Over time, this combination of ability transforms the learner. Historians often address questions that have no single answer and which constantly have to be considered relative to other yet-to-be-answered queries. Different from working in the hard sciences, episodes which historians examine cannot be replicated, and therefore students of history may be called upon to make judgments -- some reflecting personal value -- that may need to be changed as more information comes to light. Spoehr and Spoehr (1994) have created a list of required abilities to be mastered in becoming a good student of history:

1. To imagine yourself in situations unlike anything you are ever likely to experience.
2. To develop hypotheses about cause and effect, allowing for the possibility that a cause may be quite remote (in time, in category, in both) from its effect.
3. To assess how well your hypotheses fit the facts, recognizing that reality is messy and that there will always be counter arguments available that will seem to contradict your hypotheses, and that you must take those counter arguments into account.
4. To define abstractions precisely, and to show how those abstractions, when used and defined by others, have changed their meaning over time.
5. To articulate your own values precisely, making sure that you are positing an opinion and not merely projecting an attitude, and that your conclusions follow logically from the evidence. (pp. 73-74)

Such thinking leads to the development of particular history-sensitive heuristics, these writers suggest, citing Wineburg, which include: checking back and forth among documents to corroborate evidence, considering the source of an argument -- reading carefully among bibliographies, for example -- and constantly contextualizing interpretations, so as to develop a clearer and clearer idea of cause and effect.

Finally, it must be said that understanding history is a collaborative art; it requires social interaction with others similarly skilled. Key analytic processes not only involve dialogue within the individual learner, but call for exchanging one's viewpoints with a community of knowledgeable thinkers to create more reliable conclusions (Seixas, 1993). Ultimately, over time, common communication, based on sound investigative processes, will yield the best historical argument. In restructured classroom environments, a teacher's initial task is to develop supportive conditions to make such interaction among students possible and effective. Interventions for teaching such an innovative kind of history begin with such a presumption.

An Examination of Select Interventions

Selecting Programs to Review

In the scope of this study, it is not possible to review in depth a large number of interventions for teaching history. In fact, an exhaustive collection of current programs of study has not been pursued. Rather, a sample of experimental programs has been identified which satisfies a number of criteria drawn from this historical review. These criteria are:

1. The intervention relates to the period of reform in American education and generally ascribes to the philosophical underpinnings of that era.
2. The intervention emphasizes active student learning and the expectation of student performance as an important aspect of the assessment of achievement in developing historical ability.
3. The intervention expects that all students can be helped to develop from relatively naive into relatively expert performers of historical ability.
4. The intervention specifically seeks to develop cognitive abilities and dispositions that foster good history performance.

There is also a concern for sampling historical teaching at several levels of education, as the needs of the learner differ greatly between elementary and secondary instruction. There may be differences, too, related to the methodology by which instruction is delivered in the

classroom and the kinds of materials or teaching resources employed for teaching history in a particular program. These concerns were part of the consideration of the three interventions examined. They are: **Pixie**, an elementary school intervention; **Facing History and Ourselves**, a middle school intervention; and **History Alive!**, a high school intervention.

Pixie: An Elementary School Intervention

More than twenty-five years ago, philosopher Matthew Lipman began to teach American children how to think more clearly in a curriculum he developed called **Philosophy for Children** (Lipman, Sharp & Oscanyan, 1980). The curriculum begins with kindergarten level youngsters and goes through secondary school. **Philosophy for Children** grew into a worldwide project that trains teachers in many languages and helps youngsters learn to reason more logically and reflectively (Lipman, 1984, 1988a; Carneiro de Moura, 1992). During the past decade, Lipman's work has been an active part of the educational reform movement and a major example of redefined content capable of teaching the cognitive processes needed for higher-order thought development. One of the interventions examined for this study is a program in Lipman's curriculum called **Pixie**, a focus for third and fourth grade classrooms in early childhood schooling. Like all of **Philosophy for Children's** programs, **Pixie** purports to teach students reasoning about thinking applied to various content areas.

Pixie actually consists of a short novel (98 pages) about a main character named Pixie. The story of the novel is the story of Pixie at school and at home experiencing discoveries of meaning through language and action, through relationships with other people -- both her schoolmates and her family -- as told by herself. The story is broken into eleven chapters and in each chapter there is space for students to draw some aspect of the story as they see it. As a cognitive experience, **Pixie** provides students with authentic situations in which key concepts of learning history are embedded. Pixie learns that history is what happens in her own life, incidents bound by time and constrained by the context of her relationships with others. She is a curious and inquisitive child, and she learns to be reflective as an eight or ten year-old would be. Words and language become very important to understanding the people around

her, as well as significant to the development of Pixie's own thought processes. Memory and attribution are learned to have consequences for later events. In one incident, when Pixie has an argument with her sister, she is called upon to remember an incident and to learn new information from her sister -- information offered in defense. Pixie experiences deciding about causation of a problem versus her own preferred explanation of the situation: "I didn't say anything. I didn't want to think it might have just been an accident. It was much simpler when I thought Miranda [her sister] was to blame" (Lipman, 1981, p. 23).

Lipman has embedded complex thinking processes, such as analogical reasoning and metaphor development, in Pixie's progression. He has made operative Piaget's major cognitive concepts of time, space, and causality. He initiates the student's conceptualization of relative relationships in many practical ways -- all part of the story, yet developing one incident at a time, as Pixie becomes more engaged with answering the questions that have significance for her and the meanings she is constructing. **Pixie** provides an important experience in the third or fourth grade curriculum which emphasizes meaning acquisition and reading comprehension at the same time. The program introduces to the learner rules and reasons of thought that are necessary for understanding the underpinnings of historical inquiry. Lipman's program does not teach history **per se**, but it is an invaluable tool to be used with historical material. Or, one could think of this program as an educational approach that challenges historical instruction to present itself in such a user-friendly way that materials would employ historical story-telling in the same manner that **Pixie** presents real life situations.

Key to the implementation of Lipman's **Philosophy for Children** curriculum is the way teachers interact with students in building an understanding of **Pixie's** lessons. Lipman calls it an application of Socratic dialogue and he proposes that it is necessary that all students in a class learn the give and take of reasoning exchange, the raising of questions, the discussion of word and fact meaning, and the development of disposition. Much as Ennis (1986; 1991) has suggested his approach to critical thinking development, or as Seixas (1993) has called for pursuing history through critical dialogue, Lipman (1984) maintains:

> Through such disciplined dialogue a community of inquiry begins to develop in the classroom. As the participants in such a community fully appreciate the process, they internalize it and use it to approach **every** academic discipline in school. Moreover, when the self-corrective behavior of the group is internalized, it becomes self-critical, self-correcting disposition in the individual, which may show itself behaviorally in increased capacity for self-control. (p. 52)

Lipman's Institute at Montclair State College in New Jersey has developed a major training program to prepare **Philosophy for Children** teachers to be able to offer this methodology in any classroom. This analysis suggests Lipman's Institute would be a particularly effective preparation for classroom teachers of history.

Facing History and Ourselves: A Middle School Intervention

The middle school example reviewed in this study is a well known program called **Facing History and Ourselves**, which focuses on the historical period of World War II and events that led up to that event. The program is considered by its developers to be an interdisciplinary case study, the Holocaust being the case in point, and events in Europe between the 1920's and the 1950's as the major emphases of historic content. As a National Diffusion Network program, **Facing History** has been used for nearly twenty years as a teacher development approach for middle and high school teachers, as well as college instructors (Miller, 1994).

One of the major goals of the **Facing History** program is for students to make connections between history of a half century ago and issues of prejudice, intolerance, racism, and hatred in their own lives today. The methodology employed resembles critical thinking in many ways and sets the stage for students to think clearly both through their own study and in extensive, collaborative discussion groups. The program is based on a natural tension: How does a given student construct meaning for him/herself and, at the same time, search for truth/beauty **and** develop a deep sense of knowledge in history and related disciplines? Facts and details are very important, but so are concepts and understandings that are more dynamic and need to be connected to particular event sequences and implications. Studying **Facing History** is often an eighth grade student's first meaningful introduction to the fragility of democracy.

There are three roles that students learn simultaneously as they study **Facing History**: these include the student as historian, the student as citizen, and the student as human being. The genius of **Facing History** is that all three roles are always in development and interrelate as the learning activities in the program proceed. The new resource book for the program (Facing History and Ourselves, 1994) includes eleven chapters that are really "units of study," for it is explicitly noted that this is not merely a textbook. Each chapter introduces key ideas of **Facing History**, through particular readings. Sample chapter titles include: The Individual and Society, We and They, Germany in the 1920's, The Nazi's Take Power, Conformity and Obedience. Following each reading is a section called "Connections," suggesting ways that students can move on with the key ideas, often by posing provocative questions that require consideration and research. Resources, such as video, audio, or film material, are listed for further classroom or student use.

Facing History specifically addresses the adolescent learner and the ways that he/she thinks and behaves. The content of the program is mature and compelling; **Facing History** acknowledges that teenagers in the world today struggle with major social issues. The program also strives to develop informed understanding of the complex content, realizing that key issues being studied have to be interrelated with real life problems that naturally intrigue the student: identity, commitment, freedom, power, love. Moreover, the program assumes that just knowing about events and specific happenings is merely the initial step of recognition; students need to struggle with the arguments and ambivalences revealed in the incidents examined, and begin to own the concepts themselves. That is what is to be concentrated upon in the classroom -- with ample time for discussion -- highlighting analysis of cause and effect, or arguments from various points of view. **Facing History** maintains that, in the interest of such wrangling, the "materials promote an understanding of differing perspectives, competing truths, and the need to comprehend not only one's own motives but also those of others" (Facing History and Ourselves, 1994, p. xx).

The **Facing History** program shows that much of what historians have learned in their new vision of teaching history has actually been developed in selected schools' restructured instruction about events of the twentieth century. There have been a number of well-known documentation studies of this program completed by a competent ethnographic researcher (Fine, 1991-1992; 1993a; 1993b), and her reports underline the students' active involvement with ideas and complex understandings. Various reform efforts of this decade use and endorse the **Facing History** approach (Coalition of Essential Schools, 1989), noting that it is an example of a history project that deals successfully with the essential issue in curriculum development:

> Thoroughness, not coverage, must guide the curriculum if students are to learn to use their minds well. The starting point is to organize course offerings as well as course work around questions, not answers. (p. 1)

History Alive!: A High School Intervention

The **History Alive!** program (Bower, Lobdell & Swenson, 1994) was selected as an innovative, contemporary approach to instruction of history at the secondary level. **History Alive!** is a series of instructional practices used by social studies teachers that allows students with diverse learning styles to "experience" history. These teaching methods were developed by teachers who carefully and thoughtfully combined educational research and theory with the realities of classroom instruction. The Teachers' Curriculum Institute in California (Teachers' Curriculum Institute, 1994) has led this curriculum development work which incorporates Howard Gardner's theory of multiple intelligences (Gardner, 1983), Elizabeth Cohen's research on cooperative groupwork (Cohen, 1986), and Jerome Bruner's notion of the spiral curriculum (Bruner, 1960) as the theoretical background of the program. Essentially, these teaching-sensitive developers argue that students remember very little of the history they study at school because it is so poorly taught. Bower and his associates (1994) contend that "Students neither retain nor internalize information that is conveyed in a passive, teacher-centered fashion. But classroom experience has shown that when history is taught using an active, student-centered approach, students not only remember their lessons, but truly appreciate how history affects their lives" (p. 7).

The methodology incorporated in **History Alive!** -- in contrast to traditional lecture/recitation/seatwork -- involves multiple strategies to make the lessons interesting and challenging. Every unit starts with a fundamental question for which each student will try to generate an answer. The program employs many formats for exploring information related to the thematic question. An interactive slide presentation may be prepared, often with student involvement and assistance. Interactive groupwork can be organized with many options for student engagement and for follow-up on that engagement, such as student writing in various genres or long-term journal keeping.

The units of **History Alive!** focus on particular skills to be mastered. The skills are often cast in activities that use multiple intelligences and preferences relative to individual learners. One poster development task, for example, could involve some students sketching a poster, while other youngsters search for symbols to represent ideas in the graphic design, and still others to analyze potential, hidden meanings related to unit content. Problem solving group work and response group tasks are other strategies that can be set up at school or even outside school, to seek needed information or resources. Writing to check understandings, as well as to practice communication techniques, is another valued strategy in the program. Every unit concludes with a culminating project which serves as a mental summary for the question resolution task, and which can also be conceived as a performance measure of student progress through the particular unit.

The teacher plays an important role in **History Alive!**, deciding where to include specific content in the course and determining how to describe key understandings that one would expect in the foundation of any good history program. How should he/she present the concept of a political spectrum? How can an instructor help students understand different points of view that occur along that spectrum? In what ways can various real life experiences be related to these different viewpoints -- for example, coming to understand the positions of multiple candidates in a presidential election year? Teachers may not be on center stage in this new curricular approach, but they have key, challenging tasks to complete in developing novel ways

to mediate and to engage students in the action of the program. There are many tasks for teachers mentioned in **History Alive!** that parallel those suggested by Torney-Purta (1994) in her proposals for enhancing adolescents' conceptual change development: think-aloud problem solving, using concept maps, conducting interviews. Torney-Purta acknowledges that the different modalities employed by students in completing classwork are important, but even more significant is the cognitive up-grading that the experience brings to students so engaged.

With only three programs reviewed, one can see that many of the ideas advanced in theory to improve the teaching of history have, in fact, found their way to the world of teaching practice. The reform agenda has been a strong influence in this transformation, although obviously every history classroom has not been so involved. Students are the active participants in these interventions, yet teachers play an important, albeit altered, role in the new programs. Above all, it has been shown that where cognitive processes and supportive dispositions are centrally focused in a program, there is a great opportunity for historical expertise to be developed in naive learners. Various learning techniques and instructional strategies have been successfully incorporated in these programs to develop cognitive ability.

Implications for the Future

One cannot say that the period of reform experienced by education all over the world has not had its effects on the teaching of history. In fact, for nearly a quarter of a century, innovation and change have been occurring in history instruction, as well as among other subject matters. **Pixie, Facing History and Ourselves**, and **History Alive!** are select, actual programs that demonstrate that the new vision of history and its instruction can be realized from elementary to high school. But there is no easy course available to assure that these changes will happen automatically in schools. This study concludes by looking at some of the difficulties of bringing about major curricular innovation.

First, many teaching staffs are reluctant to teach a new vision of history. They find the traditional approach familiar and easier to carry out. They may also find traditional methodology is preferred by parents and the community-at-large, as recently reported in a

study conducted by the Public Agenda (Johnson & Immerwahr, 1994). Teachers may need more preparation themselves for working with higher cognitive processes in the classroom. It is significant to note that all three interventions reviewed reported that teachers using their program received specialized staff development experience to help them learn to implement the new approach. Presumably, this preparation was not mandated; teachers were **interested** in improving their own abilities and sensitivities.

Secondly, there is a question about what is needed to help all students succeed in the new history teaching. Change should not occur only in the history classroom; expectations need to be coordinated throughout a school, across a district, and in all areas of learning. Policy and practice development needs to take seriously both the initial preparation and the follow-up that teachers and students require to begin and maintain a curricular innovation. Districts need to take a hard look at what their students and their community need in order to understand the change from more traditional approaches to more creative efforts. Different populations, exhibiting varied levels of ability and readiness, may need differing preparation, suggests Landau (1995), in her recent examination of one state's efforts at curricular reform.

Finally, we must admit we know relatively little about how contemporary images are forged by historical understandings in the novice's mind. Ambrose (1995) suggests certain experiences are so overwhelming they shape a whole generation. We need further research, both on learners' responses to innovations and on the long-term effects on their ways of thinking. In a time of government budget cutting, such studies may be hard to come by. Still, our examination has definitely led to positive ends. We may be "woefully ignorant of things students do know," as Wineburg recently stated (1994b, p. 58), but we can be relatively confident that, with good teaching and energetic teachers, students can learn more and, most importantly, think better in the domain of history.

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